

CLAIMS

What is claimed is:

1        1. A method, comprising:  
2            receiving an optimized library via a network, the optimized library including at  
3        least one optimized routine for a processing system; and  
4            providing the optimized routine for use by an application executing on the  
5        processing system to interact with a hardware entity of the processing system.

1        2. The method of claim 1 wherein the optimized routine comprises updated code  
2        for use by the application to increase interaction efficiency with the hardware entity of  
3        the processing system.

1        3. The method of claim 1 wherein the receiving the optimized library via the  
2        network comprises receiving the optimized library via the network during an operating  
3        system (“OS”) runtime of the processing system.

1        4. The method of claim 3, further comprising:  
2            receiving an optimization header packet via the network; and  
3            determining that the optimization library is suitable for the processing system  
4        based on a module type field within the optimization header packet.

1           5. The method of claim 4 wherein the module type field includes a globally  
2       unique identifier (“GUID”) for determining that the optimization library is suitable for  
3       the processing system.

1           6. The method of claim 4, further comprising:  
2              ignoring other optimized libraries broadcast on the network if corresponding other  
3       optimization packets are determined to be unsuitable for the processing system based on  
4       the module type filed.

1           7. The method of claim 3, further comprising:  
2              storing the optimized library to a nonvolatile storage device of the processing  
3       system; and  
4              inserting a entry into a pointer table of the processing system, the entry pointing  
5       to the optimized library.

1           8. The method of claim 7 wherein the pointer table comprises one of a Secondary  
2       System Description Table (“SSDT”) defined by an Advanced Configuration and Power  
3       Interface (“ACPI”) and an Extensive Firmware Interface (“EFI”) configuration table.

1           9. The method of claim 7 wherein providing the optimized routine for use by the  
2       application, comprises:  
3              executing an optimization extension bound to the application, the optimization  
4       extension to request a load of the optimized library;

5           querying the pointer table for the entry pointing to the optimized library stored  
6       within the nonvolatile storage device; and  
7           loading the optimized library into system memory of the processing system.

1           10. The method of claim 9 where providing the optimized routine for use by the  
2       application further comprising:

3           advertising the entry point for the optimized routine of the optimized library to the  
4       application, the entry point referencing a location within the system memory of the  
5       optimized routine.

1           11. The method of claim 9 wherein the optimized library is further loaded into a  
2       user mode space of the processing system.

1           12. The method of claim 1 wherein the processing system comprises a  
2       management module of a rack of blade servers, and further comprising forwarding the  
3       optimized library to one or more of the blade servers via an out-of-band channel.

1           13. A machine-accessible medium that provides instructions that, if executed by a  
2       machine, will cause the machine to perform operations comprising:  
3           identifying that an optimized library transmitted over a network is intended for the  
4       machine, the optimized library including at least one optimized routine for interacting  
5       with a hardware entity of the machine;  
6           receiving the optimized library via the network; and

7 advertising the optimized routine for use by an application executing in a user  
8 mode space of the machine to interact with the hardware entity.

1 14. The machine-accessible medium of claim 13 wherein identifying the  
2 optimized library, receiving the optimized library, and advertising the optimized library  
3 are to be performed during an operating system (“OS”) runtime of the machine.

1 15. The machine-accessible medium of claim 14 wherein the optimized routine  
2 comprises updated code to increase interaction efficiency with the hardware entity of the  
3 machine.

1 16. The machine-accessible medium of claim 15 wherein the hardware entity  
2 comprises a processor of the machine.

1 17. The machine-accessible medium of claim 13 wherein identifying that the  
2 optimized library transmitted over the network is intended for the machine further  
3 comprises performing operations, including:  
4 receiving an optimization header packet via the network; and  
5 determining that the optimization library is suitable for the machine based on a  
6 module type field within the optimization header packet.

1        18. The machine-accessible medium of claim 13, further providing instructions  
2        that, if executed by the machine, will cause the machine to perform further operations,  
3        comprising:

4              storing the optimized library to a nonvolatile storage device of the machine; and  
5              inserting an entry into a pointer table of the machine, the entry to point to the  
6        optimized library.

1        19. The machine-accessible medium of claim 18, further providing instructions  
2        that, if executed by the machine, will cause the machine to perform further operations,  
3        comprising:

4              executing an optimization extension bound to the application, the optimization  
5        extension to request a load of the optimized library;  
6              querying the pointer table for the entry pointing to the optimized library stored  
7        within the nonvolatile storage device; and  
8              loading the optimized library into the user mode space of the machine.

1        20. A processing system, comprising:

2              a processor;  
3              a network link communicatively coupled to the processor; and  
4              a storage device communicatively coupled to the processor, the storage device  
5        including instructions which when executed by the processor perform operations,  
6        comprising:

7 monitoring traffic on the network link for an optimized library including at  
8 least one optimized routine intended for the processing system;  
9 receiving the optimized library via the network link; and  
10 advertising the optimized routine to a user mode space of the processing  
11 system for use by an application to interact with a hardware entity of the  
12 processing system.

1 21. The processing system of claim 20 wherein the instructions are to be  
2 executed by the processing system during an operating system runtime of the processing  
3 system.

1 22. The processing system of claim 20 wherein execution of the instructions  
2 further performs operations comprising:  
3 parsing an optimization header packet received via the network link; and  
4 recognizing whether the optimized library is intended for the processing system  
5 based on a module type field of the of the optimization header packet.

1 23. The processing system of claim 20 wherein the application includes an  
2 optimization extension to request a load of the optimized library upon execution of the  
3 application.

1 24. The processing system of claim 20 wherein the hardware entity is the  
2 processor.

1           25. The processing system of claim 24 wherein the optimized routine comprises  
2       updated code for interacting with the processor in a more efficient manner.

1           26. A system, comprising: /  
2       a chassis having a plurality of slots to receive a plurality of blade servers; and  
3       a management module mounted to the chassis and communicatively coupled to  
4       each of the plurality of slots to communicate with the plurality of blade servers, the  
5       management module to receive an optimized library via a network, the optimized library  
6       including at least one optimized routine for interacting with a hardware entity, the  
7       management module to forward the optimized library to one or more of the plurality of  
8       blade servers.

1           27. The system of claim 26 wherein the management module is configured to  
2       receive the optimized library during an operating system (“OS”) runtime and to forward  
3       the optimized library during OS runtimes of the plurality of blade servers.

1           28. The system of claim 26 wherein the management module includes a network  
2       agent to monitor traffic on the network to identify the optimized library as intended for  
3       the one or more of the plurality of blade servers.

1           29. The system of claim 26 wherein the management module forwards the  
2 optimized library to the plurality of blade servers via an out-of-band communication  
3 channel.

1           30. The system of claim 26 wherein the optimized routine comprises updated  
2 code for an application executing on the one or more of the plurality of blade servers to  
3 interact with the hardware entity in a more efficient manner and wherein the hardware  
4 entity comprises a processor of each of the one or more plurality of blade servers.